CONTENTS OF VOLUME 78

Number 1

Editorial
Focussed issue: computational biophysics
Noble, D. 1

An investigation into the influence of boundary condition specification in finite difference methods on the behaviour of passive and active neuronal models
Lindsay, K.A., Ogden, J.M. and Rosenberg, J.R. 3

An analytical study of the physiology and pathology of the propagation of cardiac action potentials
Hinch, R. 45

Numbers 2–3

Review
Electrophysiology of mammalian Schwann cells
Baker, M.D. 83

Mechanical stress-induced apoptosis in the cardiovascular system
Wernig, F. and Xu, Q. 105

CONTENTS OF VOLUME 79

Numbers 1–3

Review
Observing structure, function and assembly of single proteins by AFM
Müller, D.J., Janovjak, H., Lehto, T., Kuerschner, L. and Anderson, K. 1

Interactions between dihydropyridine receptors and ryanodine receptors in striated muscle
Dulhunty, A.F., Haarmann, C.S., Green, D., Laver, D.R., Board, P.G. and Casarotto, M.G. 45

Molecular evolution before the origin of species
Davis, B.K. 77

CONTENTS OF VOLUME 80

Numbers 1–2

Preface
Focussed issue: Annotating the genome
Noble, D. 1

Review
Human proteomic databases: a powerful resource for functional genomics in health and disease
Gromov, P.S., Østergaard, M., Gromova, I. and Celis, J.E. 3

Bioinformatics for the genomic sciences and towards systems biology. Japanese activities in the post-genome era
Yao, T. 23

CONTENTS OF VOLUME 78

Number 1

Editorial
Focussed issue: computational biophysics
Noble, D. 1

An investigation into the influence of boundary condition specification in finite difference methods on the behaviour of passive and active neuronal models
Lindsay, K.A., Ogden, J.M. and Rosenberg, J.R. 3

An analytical study of the physiology and pathology of the propagation of cardiac action potentials
Hinch, R. 45

Numbers 2–3

Review
Electrophysiology of mammalian Schwann cells
Baker, M.D. 83

Mechanical stress-induced apoptosis in the cardiovascular system
Wernig, F. and Xu, Q. 105

CONTENTS OF VOLUME 79

Numbers 1–3

Review
Observing structure, function and assembly of single proteins by AFM
Müller, D.J., Janovjak, H., Lehto, T., Kuerschner, L. and Anderson, K. 1

Interactions between dihydropyridine receptors and ryanodine receptors in striated muscle
Dulhunty, A.F., Haarmann, C.S., Green, D., Laver, D.R., Board, P.G. and Casarotto, M.G. 45

Molecular evolution before the origin of species
Davis, B.K. 77

CONTENTS OF VOLUME 80

Numbers 1–2

Preface
Focussed issue: Annotating the genome
Noble, D. 1

Review
Human proteomic databases: a powerful resource for functional genomics in health and disease
Gromov, P.S., Østergaard, M., Gromova, I. and Celis, J.E. 3

Bioinformatics for the genomic sciences and towards systems biology. Japanese activities in the post-genome era
Yao, T. 23

Regular paper
Ionic ligand interactions with the intracellular loop of the sodium–calcium exchanger. Modulation by ATP
DiPolo, R. and Beaugé, L. 43

Number 3

Forging the link between structure and function of electrogenic cotransporters: the renal type IIa Na^+/P_i cotransporter as a case study
Forster, I.C., Köhler, K., Biber, J. and Murer, H. 69

Formulation of a coupled mechanism between solute diffusion, phosphatase–kinase reactions and membrane potentials for the primary active transport of phosphorylated substrates through biological membranes
Maïsterrena, B., Fiaty, K., Charcosset, C., Perrin, B., Couturier, R. and West, I.C. 109